STATEMENT OF BASIS
NSSG Holdings, LLC
Scotch Gulf Lumber, LLC - Fulton
Fulton, Clarke County, Alabama
Facility/Permit No. 102-S003

This draft Title V Major Source Operating Permit (MSOP) renewal is proposed under the provisions of ADEM Admin. Code chap. 335-3-16. The above named applicant has requested authorization to perform the work or operate the facility shown on the application and drawings, plans and other documents attached hereto or on file with the Air Division of the Alabama Department of Environmental Management, in accordance with the terms and conditions of this permit. The current MSOP was effective on September 13, 2016 and expired on October 23, 2020. The application for this renewal was received on April 22, 2020 and the application was deemed complete on August 6, 2020.

On June 12, 2017, SG was issued Air Permit No. 102-S003-X007 and X008 for an 11.4 MBF/hr CDK with a 40 MMBtu/hr natural gas-fired burner and associated 4 MMBtu/hr natural gas-fired kiln CE and a new planer mill with cyclone. On October 19, 2017, SG was issued Air Permit No. X009 for an 11.4 MBF/hr Continuous Direct-fired Lumber Dry kiln with dual fuel Natural Gas or Sawdust-fired 40 MMBtu/hr burner and associated 4 MMBtu/hr Natural gas-fired kiln condensate evaporator, Air Permit No. X010 for a Planer Mill with pneumatic conveyance system to a baghouse, and Air Permit No. X011 for a green fuel silo with pneumatic conveyance system to a cyclone. Permit Nos. X009 and X010 replaced X007 and X008, respectively. On April 4, 2019, SG was issued Air Permit No. 102-S003-X012 and X013 for a 11.4 MBF/hr continuous direct-fired lumber dry kiln (CDK) with a sawdust-fired 40 MMBtu/hr Burner, without the previously permitted natural gas-fired burner or natural gas-fired kiln condensate evaporator, and a planer mill (PM) with pneumatic conveyance system to quad pack cyclones and high efficiency cyclone series. Permit Nos. X012 and X013 replaced X009 and X010, respectively.

Scotch Gulf Lumber, LLC – Fulton (SG) operates a lumber production facility in Fulton, Clarke County, Alabama. The significant sources of air pollutants at this facility are the 98.5 MMBtu/hr Wellons wood-fired boiler that provides indirect heat to three lumber dry kilns (70.2 MBF, 140.4 MBF, and 112.32 MBF), one 11.4 MBF/hr Continuous Direct-fired Lumber Dry kiln with a sawdust-fired 40 MMBtu/hr burner, Green Fuel Silo with pneumatic conveyance system to a cyclone, a sawmill, and a planer mill with pneumatic conveyance system to quad pack cyclones and high efficiency cyclone series. Insignificant emission sources at this facility include a debarker; green wood handling; a bark chipper, and a 550-gallon gasoline tank.

MSOP Modifications

The MSOP renewal would incorporate the following changes:

1. Incorporation of the requirements of Air Permit No. X012 for the 11.4 MBF/hr Continuous Direct-Fired Lumber Dry Kiln (CDK) with a Sawdust-fired 40 MMBtu/hr Burner

2. Removal of Emission Unit No. 5 (Planer Mill)

3. Incorporation of the requirements of Air Permit No. X013 for the Planer Mill (PM) with Pneumatic Conveyance System to Quad Pack Cyclones and High Efficiency Cyclone series

4. Incorporation of the requirements of Air Permit No. X011 for the Green Fuel Silo with Pneumatic Conveyance System to a Cyclone

Federal Regulations

Title V

This facility is a major source under Title V regulations because potential emissions for particulate matter (PM_{10}), carbon monoxide (CO), nitrous oxides (NO_X), and volatile organic compounds (VOC) exceed the 100 TPY major source threshold. It is also a major source of Hazardous Air Pollutants (HAP) because individual HAP potential emissions are greater than 10 TPY (Methanol has a PTE of 25.1 TPY) and the total HAP potential emissions are greater than 25 TPY (53.51 TPY).

Prevention of Significant Deterioration (PSD)

This facility is located in an attainment area for all criteria pollutants and the facility operations are not one of the 28 listed major source categories listed in ADEM Admin. Code r. 335-3-14-.04(2)(a)1(i); therefore, the major source threshold of concern is 250 TPY for criteria pollutants. The facility is a major source for PSD because the facility-wide potential VOC emissions exceed 250 TPY.

The CDK is subject to a BACT limitation of 4.0 lb/MBF VOC as WPP1 (46 lb/hr equivalent) and utilizes proper maintenance and operating practices as recommended by the manufacturer for BACT. To avoid exceeding significance thresholds for particulate matter, synthetic minor source limits were established on the cyclones (the quad pack cyclones and the high efficiency cyclone) on the planer mill pneumatic conveyance system, the cyclone on the green sawdust fuel silo, and the CDK sawdust burner. They are as follows:

Listed as lb/hr	CDK Sawdust Burner	Quad Pack Cyclones	High Eff. Cyclone	Fuel Silo Cyclone
PM	1.6	0.78	0.32	0.9
PM_{10}	1.2	0.78	0.32	0.0133
$PM_{2.5}$	1.13	0.78	0.32	0.0009

NSPS

The 98.5 MMBtu/hr Wellons wood-fired boiler was installed in 1988, prior to the applicability date for NSPS, Subpart Dc; therefore, it is not subject to this federal standard. The remaining significant sources are not included in any NSPS source categories.

MACT

Boiler MACT (40 CFR Part 63, Subpart DDDDD)

The facility is a major source of HAP emissions and has one boiler that is an affected source under 40 CFR Part 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (the Boiler MACT). The 98.5 MMBtu/hr Wellons wood-fired boiler is classified as an existing, hybrid suspension grate boiler designed to burn wet biomass/bio-based solids and is subject to the emission limitations, work practice standards, and compliance requirements of the Boiler MACT.

Initial compliance testing was conducted on July 18, 2017 and SG submitted an Initial Notification of Compliance Status (NOCS) for EU001 in accordance with the requirements of Boiler MACT on September 9, 2017. SG has a continuous steam generation monitor installed for EU 001 that meets the requirements in accordance with 40 CFR 63.7520(c). Performance testing is being used to establish the operating load, such that it does not exceed 110% of the highest hourly average operating load recorded during the performance test. In accordance with 40 CFR 63.7525(a)(7), performance testing will also be used to establish the minimum oxygen level set point no lower than the lowest hourly average oxygen concentration measured during the most recent CO performance test as the operating limit for oxygen. The most recent tune up was conducted May 26, 2020.

The following parameters were established during the most recent performance testing for the purpose of demonstrating continuous compliance in accordance with Subpart DDDDD:

Operating Limits	EU001	
Max 30-day rolling average operating load (lb/hr steam production)	68,184 lb/hr	Highest hourly average operating load (110%)
Daily Opacity Block Average	14 %	Highest hourly average opacity
Min. 30-day rolling average oxygen content	8.9 %	Lowest hourly average O2 Concentration

PCWP MACT (40 CFR Part 63, Subpart DDDD)

The facility is considered a major source for HAP emissions. The lumber dry kilns and the continuous dry kiln are affected sources under 40 CFR Part 63, Subpart DDDD, NESHAP for Plywood and Composite Wood Products (the "PCWP MACT"). The only applicable requirement for these units is the submittal of an Initial Notification. This notification was submitted on January 7, 2005 for the lumber dry kilns. The application to construct the continuous dry kiln,

served as the initial notification as an affected source under PCWP MACT. The application was received March 6, 2017.

State Regulations

Particulate Matter

The 98.5 MMBtu/hr Wellons wood-fired boiler is subject to the particulate matter (as TSP) emission limitations of ADEM Admin. Code r. 335-3-4-.08(2)(d), which limits the boiler to 0.20 gr/dscf, adjusted to 50% excess air.

The lumber dry kilns, the continuous dry kiln, and planer mill pneumatic conveyance system are each subject to the particulate matter (as TSP) emission limitations of ADEM Admin. Code r. 335-3-4.04 for Process Industries-General. The allowable emission rate for each process is calculated using one of the following process weight equations:

$E = 3.59P^{0.62}$ ($P < 30$ tons per hour) **OR**

$E = 17.31P^{0.16}$ ($P \geq 30$ tons per hour)

where E = Emissions in pounds per hour and
P = Process weight per hour in tons per hour

In addition to the above limitations, ADEM Admin. Code r. 335-3-4-.01(1) sets forth a visible emissions standard which states that each stationary source at the facility shall not emit particulate of an opacity greater than twenty percent (20%), as determined by a six-minute average, more than once during any 60-minute period, and shall not at any time emit particulate of an opacity greater than forty percent (40%), as determined by a six-minute average.

Sulfur Oxides (SO_X)

The 98.5 MMBtu/hr Wellons wood-fired boiler is subject to the sulfur oxides (as SO_2) emission limitation of ADEM Admin. Code r. 335-3-5-.01(b), which limits the boiler to 4 lb/MMBtu heat input.

Emission Testing and Monitoring

Wood-fired Boiler

SG would be required to conduct emission testing annually to show compliance with the emission limitations under Boiler MACT except as specified in 40 CFR §63.7515(b) through (e), and (g). SG conducted initial compliance testing on July 18, 2017 and submitted an Initial Notification of Compliance Status (NOCS) for EU001 in accordance with the requirements of Boiler MACT on September 9, 2017. SG has a continuous steam generation monitor installed for EU 001 that meets the requirements in accordance with 40 CFR 63.7520(c). Performance testing is being used to establish the operating load, and to establish the minimum oxygen level set point. Additionally,

SG would be required to conduct a tune-up and burner inspection every 5 years, with the last being conducted May 26, 2020.

The boiler is also subject to the SIP SO_2 allowable emission rate of 4.0 lbs/MMBtu of heat input. Wood by-products are the sole fuel source for the boiler. Due to the minimal expected SO_2 emissions from the combustion of wood residues, no further emission testing or monitoring for SO_2 is considered necessary.

Lumber Dry Kilns

The lumber in the kilns is dried via radiant heat from closed steam coils resulting in negligible particulate emissions. Emissions from kiln vents are primarily condensed water vapor and VOC driven off from the drying lumber. Due to the nature of the emissions from the kilns, emission testing and monitoring for the SIP visible emission and particulate standards is not considered practical. Emission testing for VOC will not be required as the VOC emissions are not limited by any applicable standard.

Continuous Dry Kiln

The CDK minimizes energy use by heat transfer from exiting newly dried wood to incoming green wood. All air emissions from the kiln exhaust through the open doorways at each end. Due to the nature of the emissions from the kiln, emission testing and monitoring for the SIP visible emission and particulate standards is not considered practical. To ensure that the maximum capacity of the kiln is not exceeded, SG is required to calculate the kiln production on a monthly and 12-month rolling total basis, to be updated within ten (10) days of the end of each calendar month.

No emission testing is required for the CDK, as it is expected that the CDK is able to comply with State allowable particulate emission rates and BACT emission limits based on calculations provided. If emission problems are observed in the future from these emission sources, testing may be required at that time.

Planer Mill Pneumatic Conveyance System

No emission testing is required on the cyclone exhaust, as it is expected to be able to comply with the applicable emission limitation. SG is required to perform the following emission monitoring for the planer mill cyclones emission point associated with the pneumatic conveyance system:

- While the process is operating, someone familiar with the process shall observe the visible emissions from all cyclones associated with this process a minimum of once daily during daylight hours for greater than normal visible emissions as determined by previous observations.
- Whenever observed emissions are greater than normal, the permittee shall initiate corrective action as soon as practicable but no longer than 24 hours from the time of observation followed by an additional observation to confirm that visible emissions have been reduced to normal.
- The cyclones shall be physically inspected to assure that the device has been properly maintained and operates as designed at least annually, but more frequently whenever observed visible emissions are greater than normal. If the results of the inspection indicate

that cleaning or maintenance is needed, such action shall be initiated within 24 hours of completing the inspection

Compliance Assurance Monitoring (CAM)

40 CFR Part 64, Compliance Assurance Monitoring, applies to processes that utilize an active control device to meet an emission limitation. The permittee does not operate any equipment that is considered an active control device. Although the boiler is equipped with a multiclone, the multiclone is located prior to the ID fan and is considered inherent to the operation of the boiler. In addition, the cyclone associated with the planer mill pneumatic conveyance system is considered inherent process equipment.

Recordkeeping and Reporting Requirements

The permittee would be required to maintain records of the dates, times, and results of all emission monitoring performed; the dates, times, nature, and duration of all excursions from an emission monitoring parameter; the dates, times, and nature of all corrective actions taken when an excursion from an emission monitoring parameter occurred; and the monthly and 12-month rolling totals for hours of operation of the planer mill pneumatic conveyance system and continuous drying kiln. The permittee would be required to submit Semiannual Monitoring Reports (SMR) to certify whether all emission monitoring was conducted as required, and if not, the dates and reasons why it was not conducted. In addition, the SMR would include the monthly and 12-month rolling totals of the operating hours for the planer mill and CDK. The Permittee has requested the SMR be realigned to the calendar year with the issuance of this renewal.

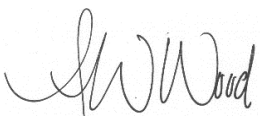
In compliance with the Major Source Boiler MACT, SG is required to maintain records in accordance with the applicable requirements listed in 40 CFR 63.7555 and 63. 7560 and to submit a Semiannual Compliance Report in accordance with 40 CFR 63.7550. Reporting under the Boiler MACT occurs on a calendar basis (January 1-June 30 and July 1-December 31).

Public Notice

The renewal of this Title V MSOP will require a 30-day public comment period and a 45-day EPA review period.

Recommendation

I recommend that SG's MSOP be renewed with the conditions noted above, pending the resolution of any comments received during the 30-day public comment period and 45-day EPA review period.



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Date